

Purchase Order Receipt Listing

Monday, June 12, 2017 10:07:04 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO36496 Receipt Dates from 6/9/2017 to 6/9/2017 All Line Item Types
All Item ID/GL/WOs All Rec. Employees All Currencies
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Vendor ID/Vendor Name											
PO36496	1		TW Metals								
USD	No		M304TR0.675W.091 f		6/8/2017	6/9/2017	23.7500		0.0000	0	\$0.00
			304 RD Tube .675 x f		20.0000	PLOU01			0.0000	0	
			.091W								
			m137761								
	2		M304TR0.750W.049 f		6/8/2017	6/9/2017	60.0000		0.0000	0	\$0.00
	No		304 RD Tube .750 x f		60.0000	PLOU01			0.0000	0	
			.049W								
			m137761								
	3		M304TR1.250W.125 f		6/8/2017	6/9/2017	20.0000		0.0000	0	\$0.00
	No		304 RD Tube 1.250 x f		20.0000	PLOU01			0.0000	0	
			.125w								
			m137761								
	4		M4130NT0.500W.08 f		6/8/2017	6/9/2017	20.0830		0.0000	0	\$0.00
	No		4130 RD tube .500 x f		20.0000	PLOU01			0.0000	0	
			.083W								
			m137761								
	5		M6061T6T0.375W.05 f		6/8/2017	6/9/2017	84.0000		0.0000	0	\$0.00
	No		6061-T6 RD Tube f		80.0000	PLOU01			0.0000	0	
			.375 x .058W								
			m137761								
	6		M6061T6T0.500W.05 f		6/8/2017	6/9/2017	48.0000		0.0000	0	\$0.00
	No		6061-T6 RD Tube f		40.0000	PLOU01			0.0000	0	
			.500W.058W								
			m137761								
	7		71401-45		6/8/2017	6/9/2017	1.0000		0.0000	0	\$0.00
	No		PROCUREMENT		1.0000	PLOU01			0.0000	0	
			QUALITY								
			CLAUSES								
			m137761								

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Total Received Quantity:											
Total Qty to Inspect (PO U/M):											
Total Reject Quantity:											
Total Receipt Value:											
Total Balance Due Quantity:											
256.8330											
0.0000											
0.0000											
\$0.00											
0.0000											



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 80859150

FROM: CHIC

PAGE 1

CUST NUMBER: 1203820 NET WGT: 82.229 REQ.DATE: 06/08/17 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA CN K6A 1K7 ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 06/02/17
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO36496 RELEASE NO.:
RECEIVING PHONE:

LINE	ITEM DESCRIPTION	WIDTH	LENGTH
0001	38420 SMLS 304/L A-312 3/8 SCH 40		17/24 FT

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
	20.000 FT	23.750 FT	23.750 FT	13.605

PCS 1

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00
PO:49365461 HT:11H222 PC: 1 CUSTOMER QTY: UOM
MLT:CHINA MFG:CHINA SLB/CL:LRZM39

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
0002	36860 SMLS CD 304/L A269 3/4 OD X .049 WA		20' CL	

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
	60.000 FT	60.000 FT	60.000 FT	22.003

PCS 3

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00
PO:49334360 HT:YX1501783 PC: 3 CUSTOMER QTY: UOM
MLT:CHINA MFG:CHINA SLB/CL:-

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
0003	37241 SMLS CD 304/L A269 1-1/4 X .120WA		20 FT	

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
	20.000 FT	20.000 FT	20.000 FT	28.958

PCS 1

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00
PO:49334360 HT:YX1504817 PC: 1 CUSTOMER QTY: UOM
MLT:CHINA MFG:CHINA SLB/CL:-

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 80859150

FROM: CHIC

PAGE 2

CUST NUMBER: 1203820 NET WGT: 82.229 REQ.DATE: 06/08/17 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA CN K6A 1K7 ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 06/02/17
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO36496 RELEASE NO.:
RECEIVING PHONE:

LINE ITEM DESCRIPTION WIDTH LENGTH
0004 32821 SMLSCD 4130 6736 1/2 X .083 WA 17/24 FT

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	20.000 FT	20.083 FT	20.083 FT	7.423	1

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: 9A991.d Export License: NLR Expiration Date: 0/00/00
PO:49362520 HT:253636 PC: 1 CUSTOMER QTY: UOM
MLT:GERMANY MFG:GERMANY SLB/CL:1632158

0005 41952 D6061-T6 3/8 OD X .058 WA 12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	84.000 FT	84.000 FT	84.000 FT	5.695	7

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49363913 HT:F002343920001 PC: 7 CUSTOMER QTY: UOM
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:222469

0006 42276 D6061-T6 1/2 OD X .058 WA 12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	48.000 FT	48.000 FT	48.000 FT	4.545	4

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49365548 HT:F002361250001 PC: 4 CUSTOMER QTY: UOM
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:222661

2077-6-12

THANK YOU FOR THIS ORDER

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O'Neal High-Performance Metals Group



**Packing
Slip**

ORDER NO.: 80859150

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CUST NUMBER: 1203820 NET WGT: 82.229 REQ.DATE: 06/08/17 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA ONTARIO CANADA CN K6A 1K7 CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 06/02/17
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO36496 RELEASE NO.:
RECEIVING PHONE:

LINE ITEM DESCRIPTION WIDTH LENGTH
BROKERS KUEHNE AND NAGEL LTD

AREA		TYPE OF PKG	PKGS	GRS WEIGHT	WIDTH	LENGTH	HGHT
YRC	REDDICRATE	1.000	133.000	5.0000	290.0000	5	
		1.000	133.000				

BY: MG
RT 000-

UNLOAD TYPE: NONE SPECIFIED

8/17/12

DATE SHIPPED _____

DATE FILLED _____

THANK YOU FOR THIS ORDER

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**Packing
Slip**

ORDER NO.: 80859150

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PAGE 4

CUST NUMBER: 1203820	NET WGT: 82.229	REQ.DATE: 06/08/17	CONFIRMED
SOLD TO:	SHIP TO:		
DART AEROSPACE LTD	DART AEROSPACE LTD		
1270 ABERDEEN ST	1270 ABERDEEN ST		
HAWKESBURY ON	HAWKESBURY ON		
CANADA	CN K6A 1K7	ONTARIO CANADA	CN K6A 1K7
SALESPERSON: DONNA SMALLEY	SHIP BY: 06/02/17		
TERMS: NET 30 DAYS	235 TUBEWAY		
F.O.B.: SHIPPING POINT	CAROL STREAM	IL 60188	
CUST ORD NO.: PO36496			
VIA: COMMON CARRIER			
FREIGHT: PREPAID			
RELEASE NO.:			
RECEIVING PHONE:			

"TW Metals MSDS data is available on our web site at www.twmetals.com. MSDS data can be found under the Technical Resources Tab, Product Statistics & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

"CERTIFICATE OF CONFORMANCE"

"TW Metals certifies that the material supplied on this purchase order and contained in the heat/lot number referenced above has been manufactured, inspected, and tested in accordance with the material specification. These records are on file at TW Metals. Packaging material for shipments to Europe and China consists of manufactured wood products and complies with the European emergency measures for coniferous non-manufactured wood packing material"

Authorized Test Report Clerk *Mark D. Skene* Date: 6/05/17

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

THANK YOU FOR THIS ORDER

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<http://www.twmetals.com/invoice-terms.html>

Customer: TWMEXT PO#:M49365461 SO#:LRZM39
Item:S4L00C Bundle:WLPW077TA29-73 Heat#:11H222
MTR#:WLPSPW077025.GIF

FB#m49365461 AG-2110117

MILL INSPECTION CERTIFICATE

EN 10204 3.1

CHANGSHU WALSHIN SPECIALTY STEEL CO., LTD.

DAS

39

ELEMENTS		C	Si	Mn	P	S	Ni	Cr	Mo	N	Cu	Ti	Nb	Mo	Co	V	B	Al	Sb	Pb	As	Sn	Fe	Bi	Zn	At	Pb	Fe	content
SPECIFICATION		min	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																			
		max	0.035	0.750	2.000	0.045	0.030	11.000	20.000																				
RESULTS			0.024	0.370	0.900	0.033	0.001	8.060	18.180																				

SIZE	PACKAGE NO.	PIECES	WEIGHT		TS	YS		EL (50mm)	HARDNESS	FLATTENING TEST	FLARING TEST	L.C. TEST	PITTING CORROSION (mg/dm ² day)	GRAN SIZE	Leq No.	HYDROSTAT IC TEST MPa	EDDY CURRENT TEST	ULTRASONIC TEST
			FI	KG		0.2% MPa	1% MPa											
38*405*606-7315	7429-73	101	2372.57	596	590580	253253	61564	75/5	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	20150516/27	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
TOTAL: 101 2372.57 596																		

REMARKS:	
1. WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN BEING MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE RESULTS OF THE CONTRACT, AND CONFORM TO THE SPECIFICATION ABOVE. 2. MATERIAL FREE FROM MERCURY CONTAMINATION AND RADIOACTIVE CONTAMINATION. 3. NO REPAIR BY WELDING. 4. THE CERTIFICATE SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF THE COMPANY.	

CHEMICAL COMPOSITION (WT%)	
HEAT NO.:	11H222
SPECIFICATION:	ASTM A312-14/A312-13/ASME SA312-13/SA 312-13
CERTIFICATE NO.:	201500042500025
GRADE:	TP304/304L

TW METALS REPORT	
DATE	FEB 16 17
ACCEPTED BY	

CUSTOMER:	
TA CHEN STAINLESS PIPE CO., LTD.	
DATE:	2015/08/24
COMMODITY:	STAINLESS STEEL SEAMLESS PIPES
DELIVERY CONDITION:	COLD FINISHED SOLUTION ANNEALED AND PICKLED

COUNTRY OF ORIGIN:	
CHINA	
REFERENCE DISCONTINUITY:	ASME B31.3
WATER QUENCHED ANNEALING TEMPERATURE:	1000°C
FREE OF RADIATION	

QUALITY MANAGER	
Sam Bin	

ADDRESS: 2# HAIYANG ROAD, HAIYU TOWN, CHANGSHU CITY, JIANGSU PROVINCE, CHINA 215219 TEL: (0512) 52551518, 52566280 FAX: +86-512-52566027
WILCS-QP-1724-06

MILL TEST REPORT

Purchaser.: TW METALS-Carol Stream				Certificate No.: 15-11-130					
Contract No.: TWM P.O.No.: M49334360				Date of Issue.: 2015.11.7					
Commodity: Stainless Steel Seamless Tubes				Specifications: ASTM A213-13/ASME SA213-13/ASTM A269-14e1 EAW					
Process: Cold Drawn				Delivery Condition: OD Polished to 240 Grit					
Steel Grade	Heat Number	Lot Number	Dimensions		Quantity				
					Pieces	Feet			
TP304/TP304L	DAS 39 9-89 YX1501-783	9-40	3/4" x 0.049" x 20'		285	5,700			
Chemical Composition by Weight (%)									
Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00	-	-
Ladle Analysis	0.012	0.68	0.031	0.001	0.37	18.35	8.05	-	-
Product Analysis	0.019	0.70	0.033	0.002	0.39	18.37	8.31	-	-
Mechanical Properties									
Test Item	Elongation (% in 2")		Tensile Strength (PSI) Rm			Yield Strength (PSI) Rp / 0.2%			
Requirements	≥35		≥75,000			≥30,000			
Test Results	63/64		87,000/88,000			34,000/35,000			
Test Item	Reduction of Area Z (%)	Hardness	Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.I. Test		
Requirements	-	HRB≤80	-	22%	e=0.09	-	-		
Test Results	-	75/77	-	Passed	Passed	-	OK		
Test Item	Eddy Current Test	Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection				
Requirements	ASTM E 426	-	-	ASTM A262 E	End Cut	Appearance			
Test Results	Passed	-	-	OK	OK	OK			

ISO 9001:2008 Certified by Intertek 110703068

PED Certified by SZUTEST 2195-PED-1526002

Additional Remarks:

- (1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes
- (2) All tubes tested per ASTM A1016-14
- (3) Materials is NACE MR0103-2007 compliant (per Section 2.5)
- (4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)
- (5) In Compliance with EN 10204-3.1
- (6) In Compliance with RoHS Stipulation
- (7) No weld repair performed
- (8) Free from mercury contamination
- (9) Free from radioactive contamination
- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

**CANNOT CERTIFY COMPLIANCE
FAR BAA / DFARS BAA / FAR TAA**



By:

James Shi

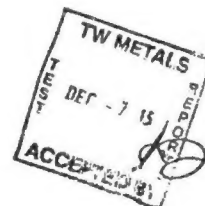
James Shi / Manager

Quality Control Department

We hereby certify that this report is true and correct.

Shanghai Pufa Stainless Steel Pipe Factory

No. 59, Shuangye Road, Wanggang, New Pudong District, Shanghai, China



MILL TEST REPORT

Purchaser.: TW METALS-Carol Stream				Certificate No.: 15-11-149					
Contract No.: TWM P.O.No.: M49334360				Date of Issue.: 2015.11.7					
Commodity: Stainless Steel Seamless Tubes				Specifications: ASTM A213-15/ASME SA213-13/ASTM A269-14el EAW					
Process: Cold Drawn				Delivery Condition: OD Polished to 240 Grit					
Steel Grade	DAS Heat Number	Lot Number	Dimensions			Quantity			
						Pieces	Feet		
TP304/TP304L	39-89 YX1504-817	9-18	1-1/4" x 0.120" x 20'			155	3,100		
Chemical Composition by Weight (%)									
Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00	-	-
Ladle Analysis	0.011	0.64	0.031	0.003	0.34	18.24	8.05	-	-
Product Analysis	0.021	0.63	0.033	0.002	0.32	18.10	8.63	-	-
Mechanical Properties									
Test Item	Elongation (% in 2")		Tensile Strength (PSI) Rm			Yield Strength (PSI) Rp / 0.2%			
Requirements	≥35		≥75,000			≥30,000			
Test Results	65/66		90,000/91,000			35,000/36,000			
Test Item	Reduction of Area Z (%)		Hardness	Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.I. Test	
Requirements	-		HRB≤80	-	22%	e=0.09	-	-	
Test Results	-		76/78	-	Passed	Passed	-	OK	
Test Item	Eddy Current Test	Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection				
Requirements	ASTM E 426	-	-	ASTM A262 E	End Cut	Appearance			
Test Results	Passed	-	-	OK	OK	OK			

ISO 9001:2008 Certified by Intertek 110703068

PED Certified by SZUTEST 2195-PED-1526002

Additional Remarks:

- (1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes
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- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

**CANNOT CERTIFY COMPLIANCE
FAR BAA / DFARS BAA / FAR TAA**

By:



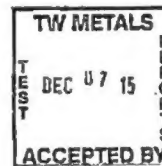
James Shi

James Shi / Manager

Quality Control Department

We hereby certify that this report is true and correct.

Shanghai Pufa Stainless Steel Pipe Factory
No. 59, Shuangye Road, Wanggang, New Pudong District, Shanghai, China



CAR

Benteler Steel/Tube GmbH
Postfach 13 40
33043 Paderborn
Deutschland
Tel.: +49.5254.81-0 Fax: +49.5254.13666

BENTELER

Steel/Tube

ABNAHMEPRÜFZEUGNIS EN 10204-3.1

INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1
EN 10204:2005-01

Benteler Steel/Tube GmbH · Postfach 1340 · 33043 Paderborn · Deutschland

TW Metals
The Aboretum, Suite 204
760 Constitution Drive
EXTON PA 19341
USA

Dokument-Nr.: 41-991327/001/P

Document No.:
No. du document:

Kunden-Bestell-Nr.:
Purchase Order No.:
No. de commande du client:

Benteler Auftrags-Nr.:
Benteler Order No.:
No. de commande Benteler:

Versandanzeigen-Nr.:
Dispatch Note No.:
No. d'avis d'expédition:

Produkt: NAHTLOSE STAHLROHRE
Product: SEAMLESS STEEL TUBES
Produit: TUBES D'ACIER SANS SOUDURE

Prüf-Nr.:
Inspection No.:
No. du certificat:

46004784TW M49362520

1632158

4185829

Hersteller:
Manufacturer:
Producteur:
Warmrohrwerk/Zieherei
(DIN EN ISO 9001, ISO/TS 16949 CERTIFIED BY TÜV NORD CERTI
(PED 2014/68/EU CERTIFIED BY TÜV NORD SYSTEMS)

Herstellerzeichen:
Manufacturer's brand:
Marque du producteur:

Stempel des Abnahmebeauftragten: WA
Stamp of the inspection representative:
Poinçon du contrôleur:

Stahlschmelzungsverfahren: ELEKTROSTAHL
Steelmaking process: ELECTRIC FURNACE
Procédé d'élaboration de l'acier: FOUR ELECTRIQUE

Lieferbedingungen:

Terms of delivery:

Conditions de livraison:

Maße - Toleranzen:

Dimensions-tolerances:

Dimensions-tolérances:

Stahlsorte:

Steel grade:

Nuance d'acier:

Lieferzustand:

Delivery condition:

État de livraison:

Produktkennzeichnung:

Product marking:

Marquage du produit:

AMS-T-6736B-08 Type 1, ASTM-A 519-2006, MIL-T-6736B Type 1, AMS6360 Rev. M, AMS 2301K

straightness acc. to customer request, AMS 2253E-83, Aircraft Type, Seamless, Cold Finished

GRADE 4130

Condition N

FSD: BENTELER AMS6360M-AMS-T-6736 B 1-MIL-T-6736 B 1-AMS 2301K 4130 Condition N HEAT-NO.

CD AQ S DIMENSIONS WA GERMANY

AEZ = Ätztintenbeschriftung, Etching Ink marking, Gravure à l'encre · FK = Farbkennzeichnung, color marking, marquage par couleur · FS = Farbschablonierung, paint stencilling, marquage par peinture · FSD = Farbstrahldrucker, Color jet printer, Imprimante à jet d'encre de couleur · LK = Laserkennzeichnung, Laser marking, Marquage laser · PKE = Etikettenkennzeichnung, tag marking, marquage sur étiquette · PS = Prägestempel, die stamp, marquage par poinçonnage · TS = Tintenstrahlkennzeichnung, Ink jet spray marking, imprimante à jet d'encre



1/2

Benteler Steel/Tube GmbH
Postfach 13 40
33043 Paderborn
Deutschland
Tel.: +49.5254.81-0 Fax: +49.5254.13666

BENTELER

Steel/Tube

ABNAHMEPRÜFZEUGNIS EN 10204-3.1

INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1

Dokument-Nr.: 41-991327/001/P

Document No.:
No. du document:

Prüf-Nr.:
Inspection No.:
No. du certificat:

Blatt: 2 / 4
Page:
Page:

Pos.	Stück	Maße	Gesamtlänge	Gewicht	Schmelzen-Nr.	Prüfdruck	Rohr-Nr.-Gruppe	Vielfachlängen
Item	Number	Dimensions	Length total	Weight	Heat No.	Test pressure	Tube number group	Multiple lengths
Poste	Nombre	Dimensions	Longueur totale	Poids	No. de coulée	Pression d'épreuve	Série de no. des tubes	Longueurs multiples
0008	125	0.500" O.D. * 0.083" WT 20 FT - 24 FT	2500,56 feet	926 lbs	253636	DAS 39 9-89		

Schmelzenanalyse [%] / Heat analysis [%] / Analyse sur coulée [%]

Pos.	Schmelzen-Nr.	C	SI	MN	P	S	CR	MO	NI	CU
Item	Heat No.									
Poste	No. de coulée									
0008	253636	0,320	0,270	0,57	0,008	0,001	0,88	0,17	0,09	0,14

Produktanalyse [%] / Product analysis [%] / Analyse sur produit [%]

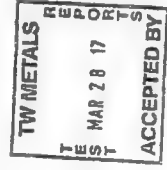
Pos.	Schmelzen-Nr.	C	SI	MN	P	S	CR	MO	NI	CU
Item	Heat No.									
Poste	No. de coulée									
0008	253636	0,310	0,280	0,55	0,012	0,002	0,88	0,17	0,09	0,15

Prüfergebnisse / Test results / Résultats des essais

Die Rohre wurden zerstörungsfrei geprüft: The tubes are non destructive tested: Les tubes ont passé un essai non destructif:	ET-test: acc. to ASTM-A 450; ET - Test method: acc. to ASTM-E 309; for imperfections; ET-test: ET with rotating pancake coils; according to EN 10246-3; imperfections; Notch depth: 0,30 mm; notch width < = notch depth; notch length min. 2 x transducer width (max. 50 mm)	PASSED	PASSED	PASSED	PASSED
Augensichtkontrolle: Visual inspection: Examen visuel:	Materialverwechslungsprüfung: Material conformity test: Vérification de la nuance:	PASSED	PASSED	PASSED	PASSED
	Maßkontrolle: Dimensions examination: Vérification des dimensions:				

Ergebnisse der mechanischen Prüfung / Results of mechanical testing / Résultats des essais mécaniques

Die Probennahme erfolgte an Vielfachlängen.
The sampling was carried out on multiple lengths.
L'échantillonnage était réalisé aux longueurs multiples.



Handwritten signature/initials

Benteler Steel/Tube GmbH
Postfach 13 40
33043 Paderborn
Deutschland
Tel.: +49.5254.81-0 Fax: +49.5254.13666

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1

Dokument-Nr.: 41-991327/001/P
Document No.:
No. du document:

Prüf-Nr.:
Inspection No.:
No. du certificat:

Blatt: 3 / 4
Page:

Zugversuch längs bei RT, Vollprobe / Tensile test longitudinal at RT, Full section test specimen / Essai de traction longitudinale à TA, Eprouvette a section complete

Pos.	Proben-Nr.	Schmelzen-Nr.	Probenabmessung	Streckgrenze	Zugfestigkeit	Dehnung
Item	Specimen No.	Heat No.	Specimen dimensions	Yield strength	Tensile strength	Elongation
Poste	No. de l'éprouv.	No. de coulée	Dimensions de l'éprouv.	Limite élastique	Résistance à la traction	Allongement
Anforderungen			mm	Rp 0,2 %	Rm	A2"
Requirements				KSI	KSI	%
Exigences				MIN 75	MIN 95	MIN 12.00
0008	000001	253636	12,74 X 2,13	103	125	19,00
0008	000002	253636	12,74 X 2,13	101	124	19,00
0008	000003	253636	12,74 X 2,13	101	125	18,00

Randentkohlung / Surface decarburization / Décarburation superficielle

Pos. / Item / Poste: 0008

acc. to AMS-6360, partial decarburization outside max. 0.014 in, partial decarburization inside max. 0.014 in, partial decarburization outside and inside max. 0.018 in, partial decarburization outside and inside max. 0.457 mm, without total decarburization; partial decarb. out. max.: 0,356 mm; partial decarb. ins. max.: 0,356 mm

Vermerk / Remark / Remarque

Pos. / Item / Poste: 0008

Certificate remarks: The steel grade corresponds to MIL-T-6736B, AMS 6360M, material free from mercury contamination, FAR BAA: 52.225-1 CANNOT COMPLY, DFARS BAA: 252.225-7001 CAN COMPLY, FAR TAA: 52.225-5 CAN COMPLY, No weld repair has been carried out, Country of origin of the material and heat: Germany, Aircraft quality steel acc. to AMS 2301K; see appendix page 1 of 1.

Pos. / Item / Poste: 0008

Macroscopic examination: acc. to ASTM-E 381

Pos. / Item / Poste: 0008

Magnetic particle inspec.: acc. to AMS 2301K/ASTM-E 1444, on prematerial

Pos. / Item / Poste: 0008

Grain size: acc. to ASTM-E 112; Grain size and finer: 5; Grain size: Longitudinal structure micrography, On prematerial

Verkäufer(in) / Sales Personnel / Personne chargée : Mr Schwarz, Tel.: 05254 81-204311, Fax: 204391



Handwritten mark

Benteler Steel/Tube GmbH
Postfach 13 40
33043 Paderborn
Deutschland
Tel.: +49.5254.81-0 Fax: +49.5254.13666

BENTELER

Steel/Tube

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1

Dokument-Nr.: 41-991327/001/P
Document No.:
No. du document:

Prüf-Nr.:
Inspection No.:
No. du certificat:

Blatt: 4 / 4
Page:
Page:



Paderborn Schloß Neuhaus, 07.03.2017, TEL.: 05254.81-201768 FAX: 05254.81-201752

Abnahmebeauftragter
Inspection representative
Contrôleur

i. A. THOMAS GOILLAN / Tat
Es wird bestätigt, daß die gelieferten Erzeugnisse den techn. Lieferbedingungen des Auftrages entsprechen. Dieses Dokument wurde mittels EDV erstellt und ist ohne Unterschrift rechtsgültig.
We certify that the supplied products comply with the order specification. This document was prepared by means of electronic data processing and is valid without signature.
Nous attestons que les produits livrés sont conformes aux stipulations de la commande. Ce document a été établi par traitement électronique de l'information et est valide sans signature.

[Handwritten signature]

Abnahmeprüfzeugnis EN 10204-3.1 / Anhang
Inspection Certificate EN 10204.3.1 / appendix
Certificat de réception EN 10204-3.1 / appendice

Dokument-Nr.
Document No.:
No. de document:

41-991327/001/P

Blatt: von
Page: 1 of 1
Page: de

Halbzeuguntersuchung: Stahlsorte 4130 / **Semi finished product examination: grade 4130** / Produit semi-fini: nuance 4130

Schmelzen-Nr. Heat No. Coulée No.	Position Item Poste	Korngröße Grain size Grosseur de grain (ASTM-E 112)	Härtebarkeit (min. Anforderungen) Hardenability (min. requirements) Trempeabilité (exigence min.) (ASTM-A 255)		Magnetpulverprüfung Magnetic particle inspection Essai à la poudre magnétique (AMS 2301 K/ASTM- 1444)		Makroätzung Macrostructure test Essai de macrostructure (ASTM-E 381)		
			J(5/16") min. 35 HRC	J(8/16") min. 28 HRC	F max. 0,34	S max. 0,25	max. S 2	max. R 1	max. C 2
253636	008	9	44	34	0,020	0,015	S 2	R 1	C 2
Decarburization Depth		Outside 0,000 mm	Inside 0,050 mm						



Der Stahl ist frei von Quecksilberverunreinigungen. / **The steel is free of mercury contamination.** / L'acier est libre des contaminations de mercure.

Paderborn Schloß Neuhaus, 07.03.2017
Tel.: (0)5254.81-201760 Fax: (0)5254.81-201752

Abnahmebeauftragter
Inspection representative
Contrôleur

Thomas Gollan

Handwritten signature

KAISER ALUMINUM FABRICATED PRODUCTS

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49363913-1		CUSTOMER PART NUMBER: 41952		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 222469	LINE ITEM: 001	SHIP DATE: 02/24/2017	KAISER LOT NUMBER: F00234392 9-89	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 381.000 LB	QUANTITY: 469.000 PCS	B/L NUMBER: 224425	DIAM/ID/THKNS:	WIDTH:	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

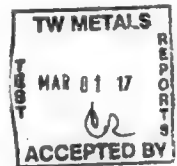
REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	BEND
F00234392	0001	1	45.9	38.8	17.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D76511	.59	.28	.23	.06	.98	.08	.07	.02	.00	.00	.00	.01	.02

Applicable Requirements:

Description: OD: 0.3750"; Wall: 0.0580"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA (DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5 TRADE AGREEMENTS).

Plant Serial: 00024262
Kaiser Order Number: 222469
Line Item: 001

C

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

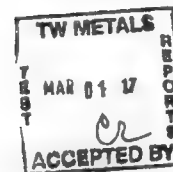
CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt, Quality Manager



Plant Serial: 00024262
Kaiser Order Number: 222469
Line Item: 001

C

KAISER ALUMINUM

FABRICATED PRODUCTS

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49365548-1		CUSTOMER PART NUMBER: 42276		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 222661	LINE ITEM: 001	SHIP DATE: 03/20/2017	KAISER LOT NUMBER: F00236125	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 443.000 LB	QUANTITY: 388.000 PCS	B/L NUMBER: 224652	DIAM/DAI/THKNS: 3.00	WIDTH: 3.00	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

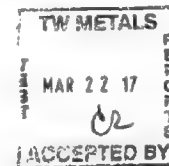
REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON% IACS	BEND
F00236125	0001	1	46.7	41.1	17.0	N/A	N/A	N/A
F00236125	0002	1	46.2	40.9	18.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D76510	.62	.23	.23	.05	.99	.07	.07	.02	.00	.00	.00	.01	.02

Applicable Requirements:

Description: OD: 0.5000"; Wall: 0.0580"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12 WW-T-700/6F
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA
(DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5
TRADE AGREEMENTS).

Plant Serial: 00024461
Kaiser Order Number: 222661
Line Item: 001

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

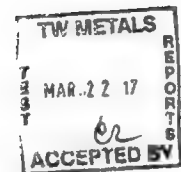
CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt, Quality Manager



Plant Serial: 00024461
Kaiser Order Number: 222661
Line Item: 001

C

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M3017R0.7504-049

PO / BATCH NO.: 030496/1137761

DATE: JUN 14 2017

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: .750

QUANTITY RECEIVED: 60'

THICKNESS RECEIVED: .747

QUANTITY INSPECTED: 60'

SHEET SIZE ORDERED: N/A

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Astm A213
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Ht # YX1501783
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>CB</u>	SIGNED OFF BY: _____
DATE: <u>JUN 14 2017</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 1304+R125CW-125

PO / BATCH NO.: 0036496/1137761

DATE: JUN 14 2017

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: .125

QUANTITY RECEIVED: 20'

THICKNESS RECEIVED: .120

QUANTITY INSPECTED: 20'

SHEET SIZE ORDERED: N/A

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	N	ASTM A213
CORRECT THICKNESS	<input checked="" type="radio"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	N	HT # 4X 1504817
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>39</u>	DATE: _____		
DATE: <u>9-89</u>	DATE: _____		
DATE: <u>JUN 14 2017</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M4130TRO.675
 DATE: JUN 14 2017

PO / BATCH NO.: A036496/4137761

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 20'
 QUANTITY INSPECTED: 20'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .083
 THICKNESS RECEIVED: .083
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	N	
CORROSION	Y	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	N	AMS-6360
CORRECT THICKNESS	<input checked="" type="checkbox"/>	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	N	47 #253636
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>39</u> <u>9-89</u> DATE: <u>JUN 14 2017</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 1606116T0375W.058
 DATE: JUN 14 2017

PO / BATCH NO.: 0036496/M137761

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 84'
 QUANTITY INSPECTED: 84'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .058
 THICKNESS RECEIVED: .058
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	N	
CORROSION	Y	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	N	ASTM B210
CORRECT THICKNESS	<input checked="" type="checkbox"/>	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	N	HT # F00234392
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>39 9-89</u>	SIGNED OFF BY: _____
DATE: <u>JUN 14 2017</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061-T6 0.500W-058

PO / BATCH NO.: 036496/1137761

DATE: JUN 14 2017

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: 058

QUANTITY RECEIVED: 48'

THICKNESS RECEIVED: 058

QUANTITY INSPECTED: 48'

SHEET SIZE ORDERED: N/A

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	Astm B210
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	44 # F00236125
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>39</u>	SIGNED OFF BY: _____		
DATE: <u>JUN 14 2017</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO36496**

Purchase Order Date 5/30/2017

PO Print Date 5/30/2017

Page Number 1 of 4

Order From :

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

VU-TWM001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED
MAY 30 2017

Contact Name

Vendor Phone 585 768 5600

Ship To Contact

Ship To Phone

Ship Via: YRC COLLECT

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	M304TR0.675W.091 ✓ MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING AS PER ASTM A213 OR AMSE SA213 OR ASTM A269	304 RD Tube .675 x .091W	6/8/2017 ✓ Yes 6/8/2017		20.00 ✓ f	\$5.00	\$100.00 118.75
						Line Total:	\$100.00
2	M304TR0.750W.049 ✓ MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING AS PER ASTM A213 OR AMSE SA213 OR ASTM A269	304 RD Tube .750 x .049W	6/8/2017 ✓ Yes 6/8/2017		60.00 ✓ f	\$2.10	\$126.00
						Line Total:	\$126.00

Note:

5/30/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO36496

Purchase Order Date 5/30/2017

PO Print Date 5/30/2017

Page Number 2 of 4

Order From :

VU-TWM001

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3	M304TR1.250W.125 ✓	304 RD Tube 1.250 x .125w ✓	6/8/2017	20.00 ✓	\$6.15 ✓	\$123.00 ✓
			Yes	f		
			6/8/2017			

MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING
AS PER ASTM A213 OR AMSE SA213 OR ASTM A269

Line Total: \$123.00

4	M4130NT0.500W.083 ✓	4130 RD tube .500 x .083W ✓	6/8/2017	20.00 ✓	\$4.00 ✓	\$80.00 ✓
			Yes	f		80.33
			6/8/2017			

MATERIAL: AISI 4130N SEAMLESS STEEL TUBING
AS PER MIL-T-6736 OR AMS 6371/6360/6361
6362/6373/6374

Line Total: \$80.00

5	M6061T6T0.375W.058 ✓	6061-T6 RD Tube .375 x.058W ✓	6/8/2017	80.00	\$2.15	\$172.00
			Yes	f		180.60
			6/8/2017			

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR
ASTM B241

Note:

5/30/2017

recu 20-083

recu 8.4 ft

SP17-6-12



Dart Aerospace Ltd.
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HAWKESBURY, ON K6A 1K7
CANADA

TW METALS
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Vendor Phone 585 768 5600

Ship To Contact

Ship To Phone

Ship Via: YRC COLLECT

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency USD

FOB FCA - (Free Carrier)

Line Total: \$172.00

6	M6061T6T0.500W.058 ✓	6061-T6 RD Tube .500 x.058W ✓	6/8/2017	40.00	\$1.75	\$70.00
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Yes
6/8/2017

f

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR
ASTM B241

new 48 ft

84.00

Line Total: \$70.00

7	71401-45	PROCUREMENT QUALITY CLAUSES ✓	6/8/2017	1.00 ✓	\$0.00	\$0.00
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No

6/8/2017

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

2017-6-12

Note:

5/30/2017



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PURCHASE ORDER

Purchase Order ID **PO36496**

Purchase Order Date 5/30/2017

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Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency USD

FOB FCA - (Free Carrier)

Line Total: \$0.00

PO Total: \$671.00

CL

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 5/30/2017